REMARKS

The Final Office Action of December 21, 2005 has been received and carefully reviewed. Claims 1-22 are currently pending in the application, with claims 1-18 standing rejected under 35 U.S.C. § 103, and with claims 19-22 being allowed. In Applicants' previous response dated November 16, 2005, independent claims 1 and 12 were amended to further distinguish the cited references to Haymes and Oh. Reconsideration and allowance of rejected claims 1-18 is respectfully requested for at least the following reasons.

I. REJECTION OF CLAIMS 1-18 UNDER 35 U.S.C. § 103

Claims 1-18 remain rejected under 35 U.S.C. § 103 as being obvious in view of Haymes 6,751,443 in view of Oh 6,714,789. The rejected claims include independent claims 1 and 12, involving methods for collecting data to identify an RF dead zone in a cell of a wireless network. The rejected independent claims 1 and 12 and the corresponding dependent claims 2-11 and 13-18 are patentably distinct from the proposed combination of Haymes with Oh, as discussed in greater detail below.

a. The proposed combination of Haymes with Oh fails to teach each and every element of claims 1-11.

In order to establish a prima facie case of obviousness under 35 U.S.C. § 103, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. In addition, there must be a reasonable expectation of success. Furthermore, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Thus, where none of the cited references of a proposed combination teach a single claim element or limitation, there is no prima facie case of obviousness. See MPEP § 2143, 2143.03 citing to In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974), and In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). In the present application, neither Haymes nor Oh teach receiving position data sent by a mobile station when the mobile determines that a received pilot signal strength message is below a threshold. Consequently, no prima facie case of obviousness has been asserted and the rejected claims 1-18 are patentably distinct from the proposed combination of Haymes with Oh.

Step a) of ***claim 1*** recites a method that includes, among other steps, receiving position data from a powered up mobile station located within the cell, ***the position data sent by the mobile station in response to the mobile station determining that a received pilot strength measurement message is less than a predetermined threshold***. Applicants submit, and the Office Action acknowledges at pages 2 and 3, that the Haymes reference does not disclose this step. Rather, Haymes provides a controller 200 that knows the position of a user 250, and includes this information in an error message (Fig. 2; col. 3, lines 19-34), or a GPS equipped mobile unit 320 that includes position information in an error message (Fig. 3; col. 4, lines 40-46), but makes no mention of sending position information when a pilot signal strength message is below a threshold.

The Office Action asserts at page 3 that Oh teaches this step, citing to Oh col. 5, lines 41-60, and col. 6, lines 44-49. This incredible assertion, however, does not appear to comport with the cited text of Oh. Instead, the portion of Oh referenced in the Office Action provides:

> Further, in a CDMA system, each physical sector in the cell is distinguished by a PN offset, which defines a sector-specific part of a pseudo-random number. Communications between a mobile station and the BTS on a given channel, in a given physical sector, and on a given carrier frequency, are encoded using the Walsh code of the channel and the PN offset of the physical sector and are then carried on the carrier frequency. Details of the mechanics involved in this coding and communication are well known to those of ordinary skill in the art and are therefore not described here.
>
> The pilot channel may be used for establishing signal timing and conveying signal strength measurements to facilitate handoff between sectors. In particular, via the pilot channel, a mobile station may monitor the strength of signals coming from the sector in which it is operating and coming from neighboring sectors, and a network entity (such as a switch or the mobile station itself) may maintain a neighbor list indicating which sectors have signals strengths high enough that the sectors are able to serve the mobile station. That neighbor list is traditionally used to decide when to hand off a mobile station from one cell site to another.

(Oh, col. 5, lines 42-62). Clearly, the above portion of the Oh reference does not teach or in any way suggest the mobile station sending position data in response to the mobile station determining that a received pilot strength measurement message is less than a predetermined threshold. Rather, the cited paragraphs merely indicate that the mobile station may monitor the strength of signals coming from its current sector and neighboring sectors, and may maintain a neighbor list. Also, this portion of Oh does not

mention the mobile station determining that a received pilot strength measurement message is less than a predetermined threshold.

The Office Action in this regard also cites to col. 6, lines 44-49 of the Oh reference, reproduced below:

> Typically, as the mobile station in this example moves from physical sector 30c into physical sector 34a, the signal strength of physical sector 30c will decrease and the signal strength of physical sector 34a will increase. By convention, the mobile station may therefore ask the system to switch the mobile station over to communication with physical sector 34a instead from physical sector 30c, and a network entity (such as an MSC) in the system may then orchestrate the handoff. Alternatively, an MSC or other network entity may autonomously orchestrate the handoff, based on signal strength measurements.

(Oh, col. 6, lines 44-54). Again, this paragraph of Oh merely describes the mobile station asking the system to perform a handoff operation, but in no way teaches or suggests that the mobile station determines that a pilot signal strength message is less than a threshold and sends position data to a base station in response thereto.

With respect to claim 1, moreover, there is no teaching in the cited portions or elsewhere in Oh that position information is sent in response to a determination that a pilot signal strength is less than a threshold. Rather, Oh appears to provide only for periodic location reporting by the mobile station, or reporting in response to a request from another network entity (see, for example, col. 8, line 61 through col. 9, line 17).

Thus, because neither Haymes nor Oh teach position data being sent by a mobile station in response to the mobile station determining that a received pilot strength measurement message is less than a predetermined threshold, ***the proposed combination of Haymes with Oh fails to teach each and every element of independent claim 1 and claims 2-11 depending therefrom***. For at least this reason, claims 1-11 are patentably distinct from the proposed combination of Haymes with Oh. In addition, there is no motivation, suggestion, nor reasonable expectation of success in the references or in the Office Action for modifying Haymes or Oh to provide this functionality. Applicants therefore respectfully request reconsideration and allowance of claims 1-11 under 35 U.S.C. § 103.

b. The proposed combination of Haymes with Oh fails to teach each and every element of claims 12-18.

Independent claim 12 recites a method for collecting data to identify an RF dead zone in a wireless network using a mobile station, including the step a) of at a base station, receiving position data from a powered up mobile station where the ***position data is sent by the powered up mobile station when the mobile station determines that a received pilot strength measurement message is less than a predetermined threshold***. As discussed above and acknowledged at page 6 of the Office Action, Haymes does not disclose this element of claim 12 and the associated dependent claims 13-18. The Office Action, however, asserts at page 7 that Oh teaches this feature, again citing to Oh col. 5, lines 41-60 and col. 6, lines 44-49. As illustrated above, these portions of Oh do not teach or otherwise suggest a mobile station sending position data to a base station when determining that a pilot signal is less than a threshold value. Rather, the only indications Applicants have found in Oh regarding the timing of mobile station's location reporting are at col. 3, lines 26-33 and col. 8, line 61 through col. 9, line 17, at which Oh states:

> For example, each mobile station operating within the MSC's serving system may be equipped with a position-determining system and may be programmed to use the position-determining system to determine its own location coordinates. ***Each mobile station may then be programmed to report its own location***, directly or through one or more other network entities (e.g., a mobile positioning center (MPC)), ***to the MSC***. The mobile station may be programmed to report its location periodically (e.g., every 10-30 ms, for instance) ***or in response to a designated stimulus (e.g., a request from the MSC or another network entity)***.
>
> In this regard, the well known GPS system currently provides very granular location determination and may provide even greater granularity in the future. Therefore, in an exemplary embodiment, the mobile station may include a GPS transceiver by which it may receive its location coordinates. Preferably, the GPS transceiver provides the mobile station with a substantially continuous or periodic reading of the latitude and longitude coordinates of the mobile station. ***A processor in the mobile station may then be programmed to periodically (e.g., every several seconds) report the mobile station's location directly or indirectly to the MSC***.

(Oh, col. 8, line 61 through col. 9, line 17, emphasis added). Thus, there appears to be no teaching or suggestion in either Haymes or Oh for a mobile station sending position data when the mobile determines that a received pilot strength measurement message

is less than a predetermined threshold, as set forth in independent claim 12. Consequently, claims 12-18 are patentably distinct from the proposed combination of Haymes with Oh for at least this reason.

As set forth above, no prima facie case of obviousness has been established, because the proposed combination of Haymes with Oh does not teach all the elements of claims 1-18. Applicants therefore respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 103, and allowance of pending claims 1-22.

CONCLUSION

For at least the above reasons, the currently pending claims 1-22 are believed to be in condition for allowance and notice thereof is requested.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 06-0308, LUTZ200216.

Respectfully submitted,

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